

REMARKS / ARGUMENTS

2, 5, 7-13 and 15 of the present application are before the Examiner for prosecution on their merits.

Claims 2, 5, 7-13 and 15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Holzapfel et al. (US 6,392,224) in view of Braun (US 5,508,088), Shelander (US 4,899,048), and Jankowski (DE 19805207). The Examiner has repeated this rejection verbatim from the previous, Non-Final Office Action of August 19, 2003.

In his response filed January 27, 2004, the applicant has addressed the foregoing rejection by amending claims 7, 9, 10 and 12, so that the features that distinguish the present invention from the cited references are set forth with absolute clarity. However, in item 6 of the present Final Office Action of April 20, 2004, the Examiner replies:

Applicant's arguments filed 1/17/04 have been fully considered but they are not persuasive. Regarding Jankowski, the applicant points out only one function for the use of the optical densities (Title). Another function is also noted in the reference by the "start marking" (Specification and Claim 6). The spacings are also arbitrary based on design choice as noted in the different spacings in Figures 2-4.

Applicant respectfully submits that the foregoing italicized paragraph, quoted verbatim from the Final Office Action, misrepresents the Jankovski reference, based on the following reasons:

1. Contrary to the Examiner's findings, Jankovski does not disclose a "start marking" in the specification and claim 6. The expression "Anfangswert einer Markierung" in claim 6 and "Anfangspulswert, Index einer Anfangsmarkierung" relates to a pulse counter which increments by one count for each passage from one marking to the next in the forward direction and decrements by one count for each passage from one marking to the next in the reverse direction (col. 8, lines 14-20). Obviously, the difference between an ending count value (at the endpoint of a measuring time interval) and a starting count value (at the starting point of the measuring time interval) represents a measure for the angle by which the raster disk in Jankovski's Figure 1 has moved during the measuring time interval. In other words, Jankovski performs a relative measurement of an angular movement occurring during some given time interval. Jankovski does not disclose any kind of physical marking by which an absolute starting point for a measurement could be identified.
2. Further contrary to the Examiner's findings, Jankovski's Figures 2-4 do not show "arbitrary spacings based on design choice". Figures 2-4 are diagrams illustrating the movement of the repetitive pattern of raster markings M1, M2, M3. In other

words, Figures 2-4 are graphs showing the position of the pattern as a function of time t , as indicated by the time values ("Zeitwerte" t_1, t_2, \dots , see col. 4, line 16), which are indicated at the bottom of each of the graphs in Fig. 2-4. Specifically, Fig. 2 illustrates a movement (as seen by an appropriate sensor) in one direction, Fig. 3 illustrates a movement with a reversal of direction, and Fig. 4 illustrates a movement with a back-and-forth oscillation. The individual lengths of the white, gray and black sections in Figures 2-4 are measured in time units, i.e., they represent time intervals during which the sensor sees white, gray or black, respectively. Thus, the lengths of the white, gray and black sections in Figures 2-4 depend on the momentary speed and on direction reversals of the raster disk and do not represent the actual widths of the bars in the white-gray-black raster pattern. Furthermore, Jankovski explains in col. 1, lines 56-59, "Das Muster besteht aus einer Reihe von gleichartigen, sich wiederholenden Folgen mit jeweils mindestens drei voneinander unterscheidbaren Markierungen" (The pattern consists of a series of equal, repetitive sequences, wherein each sequence has at least three markings that are distinguishable from each other). Thus there is no way that the white, gray and black bars in Jankovski's Figures 2 to 4 could be interpreted as "arbitrary spacings".

Based on the foregoing remarks, applicant respectfully submits that the reasons given by the Examiner's for finding applicant's arguments "not persuasive" are based on a misinterpretation of the Jankovski reference. Consequently, the Examiner is respectfully requested to reconsider applicant's arguments filed 1/27/04.

